WE CLAIM:

1. A system for determining a global position of an anatomical structure, comprising:

a surgical navigation system;

a substrate capable of being removably mounted to an outer surface of a user's body;

a sensor attached to the substrate that can be tracked by the surgical navigation system;

a positional device attached to the substrate;

a finger mounted structure capable of communicating with the positional device; and

a first circuit for calculating a global position of a point on the anatomical structure by correlating a position of the sensor and a position of the finger mounted structure.

2. The system of claim 1, wherein a second circuit is provided for displaying the global position of the point on the anatomical structure.

3. The system of claim 1, wherein the substrate is sufficiently flexible to enable the finger mounted structure to reach a point on the anatomical structure that is obstructed from view.

4. The system of claim 1, wherein tactile feedback to the user aids the user in maneuvering the finger mounted structure so that the position of the finger mounted structure correlates to the point on the anatomical structure.

5. The system of claim 1, wherein the anatomical structure is mapped by concatenating the position of a plurality of points.

6. The system of claim 1, wherein the outer surface of a user's body is a hand.

7. The system of claim 1, wherein the finger mounted structure comprises a finger mounted pointer.

8. The system of claim 7, wherein the finger mounted pointer includes a depressible tip.

9. The system of claim 8, wherein depressing the depressible tip activates the positional device.

10. The system of claim 9, wherein the depressible tip includes a transducer for activating the positional device when a defined pressure value is met.

11. The system of claim 8, wherein the position of the finger mounted structure is a position of the depressible tip.

12. The system of claim 1, wherein the position of the finger mounted structure is a position of a tip of the finger mounted structure.

13. The system of claim 12, wherein the tip of the finger mounted structure is located adjacent a tip of the user's finger.

14. The system of claim 12, wherein the tip of the finger mounted structure is located adjacent a pad of the user's finger.

15. The system of claim 12, wherein the tip of the finger mounted structure is located anywhere along the length of the finger mounted structure.

16. The system of claim 1, wherein the substrate includes a switch to activate the positional device.

17. The system of claim 16, wherein the switch is located in the palm of a hand.

18. The system of claim 1, wherein the sensor is an optical tracking device.

19. The system of claim 1, wherein the anatomical structure is a bony structure.

20. The system of claim 1, wherein the anatomical structure is an organ.

21. The system of claim 1, wherein the positional device comprises a magnetic tracker.

22. The system of claim 1, wherein the positional device comprises a fiber optic device.

23. A method for determining a position of a point on an anatomical structure using a surgical navigation system, the method comprising the steps of:

mounting a substrate in a removable manner to an outer surface of a user's body, the substrate having a positional device and a sensor that can be detected by the surgical navigation system;

disposing a finger mounted structure on a finger of the user capable of communicating with the positional device;

placing the finger mounted structure on the point of the anatomical structure to be determined; and

determining the position of the point.

24. The method of claim 23, wherein a first circuit calculates a global position of the point on the anatomical structure by correlating the position of the point on the anatomical structure and a position of the sensor.

25. The method of claim 24, wherein a second circuit is provided for displaying the global position of the point on the anatomical structure.

26. The method of claim 23, wherein a tip of the finger mounted structure is placed on the point of the anatomical structure to be determined.

27. The method of claim 26, wherein the tip of the finger mounted structure is located adjacent a tip of the user's finger.

28. The method of claim 26, wherein the tip of the finger mounted structure is located adjacent a pad of the user's finger.

29. The method of claim 26, wherein the tip of the finger mounted structure is located anywhere along the length of the finger mounted structure.

30. The method of claim 23, wherein the substrate is sufficiently flexible to enable the finger mounted structure to reach a point on the anatomical structure that is obstructed from view.

31. The method of claim 23, wherein tactile feedback to the user aids the user in maneuvering the finger mounted structure so that a position of the finger mounted structure correlates to the point on the anatomical structure.

32. The method of claim 23, wherein the anatomical structure is mapped by concatenating the position of a plurality of points.

33. The method of claim 23, wherein the outer surface of a user's body is a hand.

34. The method of claim 23, wherein the finger mounted structure comprises a finger mounted pointer.

35. The method of claim 34, wherein the finger mounted pointer includes a depressible tip.

36. The method of claim 35, wherein depressing the depressible tip activates the positional device.

37. The method of claim 36, wherein the depressible tip includes a transducer for activating the positional device when a defined pressure value is met.

38. The method of claim 35, wherein the depressible tip is placed on the point of the anatomical structure to be determined.

39. The method of claim 23, wherein the substrate includes a switch to activate the positional device.

40. The method of claim 39, wherein the switch is located on the palm of a hand.

41. The method of claim 23, wherein the user may utilize a second tool, and wherein the concurrent use saves the user time.

42. The method of claim 41, wherein the position of the point is determined at the same time the second tool is being used.

43. The method of claim 23, wherein an incision is made in a patient's body containing the anatomical structure.

44. The method of claim 43, wherein the incision has a length less than 10 centimeters.

45. The method of claim 43, wherein the incision has a length less than 5 centimeters.

46. The method of claim 43, wherein the incision has a length between about 2.5 centimeters and about 5 centimeters.

47. The method of claim 43, wherein the incision is made in a region of a knee of the patient's body.

48. The method of claim 43, wherein the incision is made in a region of a hip of the patient's body.

49. The method of claim 23, wherein the sensor is an optical tracking device.

50. The method of claim 23, wherein the anatomical structure is a bony structure.

51. The method of claim 23, wherein the anatomical structure is an organ.

52. The method of claim 23, wherein the positional device comprises a magnetic tracker.

53. The method of claim 23, wherein the positional device comprises a fiber optic device.

54. A system for determining a global position of an object, comprising:

a navigation system;

a substrate capable of being removably mounted to an outer surface of a user's body;

a sensor attached to the substrate that can be tracked by the navigation system;

a positional device attached to the substrate;

a finger mounted structure capable of communicating with the positional device; and

a first circuit for calculating a global position of a point on the object by correlating a position of the sensor and a position of the finger mounted structure.

55. The system of claim 54, wherein a second circuit is provided for displaying the global position of the point on the object.

56. The system of claim 54, wherein the substrate is sufficiently flexible to enable the finger mounted structure to reach a point on the object that is obstructed from view.

57. The system of claim 54, wherein tactile feedback to the user aids the user in maneuvering the finger mounted structure so that the position of the finger mounted structure correlates to the point on the object.

58. The system of claim 54, wherein the object is mapped by concatenating the position of a plurality of points.

59. The system of claim 54, wherein the outer surface of a user's body is a hand.

60. The system of claim 54, wherein the finger mounted structure comprises a finger mounted pointer.

61. The system of claim 60, wherein the finger mounted pointer includes a depressible tip.

62. The system of claim 61, wherein depressing the depressible tip activates the positional device.

63. The system of claim 62, wherein the depressible tip includes a transducer for activating the positional device when a defined pressure value is met.

64. The system of claim 61, wherein the position of the finger mounted structure is a position of the depressible tip.

65. The system of claim 54, wherein the position of the finger mounted structure is a position of a tip of the finger mounted structure.

66. The system of claim 65, wherein the tip of the finger mounted structure is located adjacent a tip of the user's finger.

67. The system of claim 65, wherein the tip of the finger mounted structure is located adjacent a pad of the user's finger.

68. The system of claim 65, wherein the tip of the finger mounted structure is located anywhere along the length of the finger mounted structure.

69. The system of claim 54, wherein the substrate includes a switch to activate the positional device

70. The system of claim 69, wherein the switch is located on the palm of a hand.

71. The system of claim 54, wherein the sensor is an optical tracking device.

72. The system of claim 54, wherein the positional device comprises a magnetic tracker.

73. The system of claim 54, wherein the positional device comprises a fiber optic device.

74. A method for determining a position of a point on an object using a navigation system, the method comprising the steps of:

mounting a substrate in a removable manner to an outer surface of a user's body, the substrate having a positional device and a sensor that can be detected by the surgical navigation system;

disposing a finger mounted structure on a finger of the user capable of communicating with the positional device;

placing the finger mounted structure on the point of the object to be determined; and

determining the position of the point.

75. The system of claim 74, wherein a first circuit calculates a global position of the point on the object by correlating the position of the point on the object and the position of the sensor.

76. The system of claim 75, wherein a second circuit is provided for displaying the global position of the point on the object.

77. The method of claim 74, wherein the substrate is sufficiently flexible to enable the finger mounted structure to reach a point on the object that is obstructed from view.

78. The method of claim 74, wherein tactile feedback to the user aids the user in maneuvering the finger mounted structure so that a position of the finger mounted structure correlates to the point on the object.

79. The method of claim 74, wherein the object is mapped by concatenating the position of a plurality of points.

80. The method of claim 74, wherein the outer surface of a user's body is a hand.

81. The method of claim 74, wherein the finger mounted structure comprises a finger mounted pointer.

82. The method of claim 81, wherein the finger mounted pointer includes a depressible tip.

83. The method of claim 82, wherein depressing the depressible tip activates the positional device.

84. The method of claim 83, wherein the depressible tip includes a transducer for activating the positional device when a defined pressure value is met.

85. The method of claim 82, wherein the depressible tip is placed on the point of the object to be determined.

86. The method of claim 74, wherein a tip of the finger mounted structure is placed on the point of the object to be determined.

87. The method of claim 86, wherein the tip of the finger mounted structure is located adjacent a tip of the user's finger.

88. The method of claim 86, wherein the tip of the finger mounted structure is located adjacent a pad of the user's finger.

89. The method of claim 86, wherein the tip of the finger mounted structure is located anywhere along the length of the finger mounted structure.

90. The method of claim 74, wherein the user may utilize a second tool, and wherein the concurrent use saves the user time.

91. The method of claim 90, wherein the position of the point is determined at the same time the second tool is being used.

92. The method of claim 74, wherein the sensor is an optical tracking device.

93. The method of claim 74, wherein the positional device comprises a magnetic tracker.

94. The method of claim 74, wherein the positional device comprises a fiber optic device.

95. An apparatus for determining a position of a point on an anatomical structure, comprising:

a substrate capable of being removably mounted to an outer surface of a user's body;

a sensor and a positional device attached to the substrate; and

a finger mounted structure capable of communicating with the positional device adapted to be mounted on a finger of the user.

96. The apparatus of claim 95, wherein the substrate is sufficiently flexible to enable the finger mounted structure to reach a point on the anatomical structure that is obstructed from view.

97. The apparatus of claim 95, wherein tactile feedback to the user aids the user in maneuvering the finger mounted structure so that a position of the finger mounted structure correlates to a point on the anatomical structure.

98. The apparatus of claim 95, wherein the finger mounted structure includes a tip, and wherein the tip is maneuvered by the user adjacent the point on the anatomical structure to be determined.

99. The apparatus of claim 98, wherein the tip of the finger mounted structure is located adjacent a tip of a user's finger.

100. The apparatus of claim 98, wherein the tip of the finger mounted structure is located adjacent a pad of the user's finger.

101. The apparatus of claim 98, wherein the tip of the finger mounted structure is located anywhere along the length of the finger mounted structure.

102. The apparatus of claim 95, wherein the outer surface of a user's body is a hand.

103. The apparatus of claim 95, wherein the finger mounted structure comprises a finger mounted pointer.

104. The apparatus of claim 103, wherein the finger mounted pointer includes a depressible tip.

105. The apparatus of claim 104, wherein depressing the depressible tip activates the positional device.

106. The apparatus of claim 105, wherein the depressible tip includes a transducer for activating the positional device when a defined pressure value is met.

107. The apparatus of claim 104, wherein the depressible tip of the finger mounted structure is maneuvered by the user adjacent the point on the anatomical structure to be determined.

108. The apparatus of claim 95, wherein the sensor is an optical tracking device.

109. The apparatus of claim 95, wherein the positional device comprises a magnetic tracker.

110. The apparatus of claim 95, wherein the positional device comprises a fiber optic device.

111. A method for determining a position of a point on an anatomical structure through a small incision opening using a surgical navigation system, the method comprising the steps of:

placing a finger mounted pointer having a rigid tip on a finger of a user, the finger mounted pointer being capable of communicating with an external positional device mounted in proximity to the incision opening, the external positional device being associated with a sensor that can be detected by the surgical navigation system;

manipulating the finger mounted pointer so that the rigid tip is in contact with the point to be determined; and

determining the position of the point.

112. The method of claim 111, wherein a first circuit calculates a global position of the point on the anatomical structure by correlating the position of the point on the anatomical structure and a position of the sensor.

113. The method of claim 112, wherein a second circuit is provided for displaying the global position of the point on the anatomical structure.

114. The method of claim 111, wherein the substrate is sufficiently flexible to enable the finger mounted structure to reach a point on the anatomical structure that is obstructed from view.

115. The method of claim 111, wherein tactile feedback to the user aids the user in maneuvering the finger mounted pointer so that a position of the rigid tip correlates to the point to be determined.

116. The method of claim 111, wherein the anatomical structure is mapped by concatenating the position of a plurality of points.

117. The method of claim 111, wherein the finger mounted pointer includes a depressible tip.

118. The method of claim 117, wherein depressing the depressible tip activates the positional device.

119. The method of claim 118, wherein the depressible tip includes a transducer for activating the positional device when a defined pressure value is met.

120. The method of claim 117, wherein the depressible tip comprises the rigid tip of the finger mounted pointer.

121. The method of claim 111, wherein the rigid tip of the finger mounted pointer is located adjacent a tip of the user's finger.

122. The method of claim 111, wherein the rigid tip of the finger mounted pointer is located adjacent a pad on the user's finger.

123. The method of claim 111, wherein the rigid tip of the finger mounted pointer is located anywhere along the length of the finger mounted pointer.

124. The method of claim 111, wherein the user may utilize a second tool, and wherein the concurrent use saves the user time.

125. The method of claim 124, wherein the position of the point is determined at the same time the second tool is being used.

126. The method of claim 111, wherein the small incision is made in a patient's body containing the anatomical structure.

127. The method of claim 126, wherein the small incision opening is less than 10 centimeters in length.

128. The method of claim 126, wherein the small incision opening is less than 5 centimeters.

129. The method of claim 126, wherein the small incision opening is between about 2.5 centimeters and about 5 centimeters.

130. The method of claim 126, wherein the small incision is made in a region of a knee of the patient's body.

131. The method of claim 126, wherein the small incision is made in a region of a hip of the patient's body.

132. The method of claim 111, wherein the sensor is an optical tracking device.

133. The method of claim 111, wherein the anatomical structure is a bony structure.

134. The method of claim 111, wherein the anatomical structure is an organ.

135. The method of claim 111, wherein the positional device comprises a magnetic tracker.

136. The method of claim 111, wherein the positional device comprises a fiber optic device.